LISTING OF CLAIMS:

What is claimed is:

1. (**Currently Amended**) A diffractive security element with a half-tone image comprising surface portions occupied with microscopically fine surface structures enclosed in a layer composite which includes at least a transparent embossing layer, a protective lacquer layer and a reflection layer with the microscopically fine surface structures, which is embedded between the embossing layer and the protective lacquer layer, wherein the surface portions with the first microscopically fine surface structures form background fields and ~~the~~ surface portions with ~~the~~ a second microscopically fine surface structure which differs from the first microscopically fine surface structures in at least one structural parameter form image element patterns and the surface of the half-tone image is divided into a plurality of image elements which are composed of the surface portions of the image element pattern and the background field and which are smaller than 1 mm at least in one dimension, wherein

the image element patterns in the image elements are of the same size, pattern strips extend with a line pattern of a width of 15 μm to 300 μm at least over a part of the surface of the half-tone image and partially cover the background fields and image element patterns, the line pattern is formed from surface strips with pattern structures and with line widths in the range of 5 μm to 50 μm, wherein the line patterns include letters, texts, line elements and pictograms and the pattern structures differ from the first and second microscopically fine surface structures in at least one structural parameter, the line width of the surface strips in the background fields is constant and the surface brightness of the image elements is controlled by means of the line width of the surface strips on the image element pattern in such a way that the surface proportion of the image element pattern not covered by the line pattern is determined in accordance with the surface brightness of the image original of the half-tone image at the location of the image element and having regard to the surface brightness of the adjacent image elements, wherein the

spatial frequency of linear diffraction gratings in the pattern structures is selected from the range of 800 lines/mm to 2000 lines/mm.

2. (**Currently Amended**) A diffractive security element according to claim 1, wherein the first and second microscopically fine surface structures are linear diffraction gratings with spatial frequencies from the range of 150 lines/mm to 2000 lines/mm.

3. (**Currently Amended**) A diffractive security element according to claim 1, wherein the microscopically fine surface structures are linear diffraction gratings with grating vectors~~,~~ ~~that~~ and in the image element patterns the grating vectors of the second microscopically fine surface structures are parallel, wherein ~~and that~~ the grating vector of the image element patterns differs in azimuth from the grating vectors of the first microscopically fine surface structures in the background fields.

4. (**Currently Amended**) A diffractive security element according to claim 3, wherein the image elements whose first microscopically fine surface structures have in the background fields the same azimuth of the grating vectors are arranged in accordance with their azimuth of the grating vector in rows on the half-tone image.

5. (Previously presented) A diffractive security element according to claim 4, wherein on its surface the adjacent rows which differ in the azimuth of the grating vectors are arranged in cyclically repetitive manner in the sequence ABC, ABC.

6. (**Currently Amended**) A diffractive security element according to claim 1, wherein the first microscopically fine surface structures and the second microscopically fine surface structure are meandering diffraction gratings whose spatial frequencies are selected from the range of 150 lines/mm to 2000 lines/mm, and that the meandering diffraction gratings of the background fields and the image element patterns differ at least in the azimuth range of the grating vectors.

7. (**Currently Amended**) A diffractive security element according to claim 1, wherein the first microscopically fine surface structures and the second microscopically fine surface structures are asymmetrical diffraction gratings, wherein the grating vectors of the asymmetrical diffraction gratings of the first microscopically fine surface structures are oriented in opposite relationship to the grating vectors of the second microscopically fine surface structures.

8. (**Currently Amended**) A diffractive security element according to claim 1, wherein the second microscopically fine surface structure in the surfaces of the image element patterns is a diffractive scatterer selected from the group of isotropic and anisotropic matt structures, kinoforms, diffraction gratings with circular grooves at a groove spacing of 1 to 3 μm and the matt structures superimposed with a diffraction grating.

9. (**Currently Amended**) A diffractive security element according to claim 8, wherein ~~characterised in that~~ the background fields as the first microscopically fine surface structure have a structure from the group which includes flat mirrors, cross gratings with spatial frequencies of greater than 2300 lines/mm and motheye structures.

10. (**Currently Amended**) A diffractive security element according to claim 8, wherein the background fields as the first microscopically fine surface structure have a linear diffraction grating with a spatial frequency from the range of 150 lines/mm to 2000 lines/mm and grating vectors which are oriented in mutually parallel relationship.

11. (**Currently Amended**) A diffractive security element according to claim 1, wherein the first microscopically fine surface structures and the second microscopically fine surface structure are linear or meandering diffraction gratings which differ in spatial frequency.

12. (Cancelled)

13. (Previously presented) A diffractive security element according to claim 12, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is dependent on the location on the half-tone image.

14. (Previously presented) A diffractive security element according to claim 12, wherein the azimuthal orientation of the grating vector of the linear diffraction grating in the pattern structures is dependent on the location on the half-tone image.

15. (Cancelled).

16. (Cancelled).

17. (Cancelled).

18. (**New**) A diffractive security element with a half-tone image comprising surface portions occupied with microscopically fine surface structures enclosed in a layer composite which includes at least a transparent embossing layer, a protective lacquer layer and a reflection layer with the microscopically fine surface structures, which is embedded between the embossing layer and the protective lacquer layer, wherein the surface portions with the first microscopically fine surface structures form background fields and surface portions with a second microscopically fine surface structure which differs from the first microscopically fine surface structures in at least one structural parameter form image element patterns and the surface of the half-tone image is divided into a plurality of image elements which are composed of the surface portions of the image element pattern and the background field and which are smaller than 1 mm at least in one dimension, wherein

the image element patterns in the image elements are of the same size, pattern strips extend with a line pattern of a width of 15 μm to 300 μm at least over a part of the surface of the half-tone image and partially cover the background fields and image element patterns, the line pattern is formed from surface strips with pattern structures and with line widths in the range of

5 μm to 50 μm, wherein the line patterns include letters, texts, line elements and pictograms and the pattern structures differ from the first and second microscopically fine surface structures in at least one structural parameter, the line width of the surface strips in the background fields is constant and the surface brightness of the image elements is controlled by means of the line width of the surface strips on the image element pattern in such a way that the surface proportion of the image element pattern not covered by the line pattern is determined in accordance with the surface brightness of the image original of the half-tone image at the location of the image element and having regard to the surface brightness of the adjacent image elements, wherein the first and second microscopically fine surface structures are linear diffraction gratings with spatial frequencies from the range of 150 lines/mm to 2000 lines/mm.

19. (**New**) A diffractive security element according to claim 18, wherein the microscopically fine surface structures are linear diffraction gratings with grating vectors and in the image element patterns the grating vectors of the second microscopically fine surface structures are parallel, wherein the grating vector of the image element patterns differs in azimuth from the grating vectors of the first microscopically fine surface structures in the background fields.

20. (**New**) A diffractive security element according to claim 19, wherein the image elements whose first microscopically fine surface structures have in the background fields the same azimuth of the grating vectors are arranged in accordance with their azimuth of the grating vector in rows on the half-tone image.

21. (**New**) A diffractive security element according to claim 20, wherein on its surface the adjacent rows which differ in the azimuth of the grating vectors are arranged in cyclically repetitive manner in the sequence ABC, ABC.

22. (**New**) A diffractive security element according to claim 18, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is selected from the range of

800 lines/mm to 2000 lines/mm, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is dependent on the location on the half-tone image.

23. (**New**) A diffractive security element according to claim 18, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is selected from the range of 800 lines/mm to 2000 lines/mm, wherein the azimuthal orientation of the grating vector of the linear diffraction grating in the pattern structures is dependent on the location on the half-tone image.

24. (**New**) A diffractive security element with a half-tone image comprising surface portions occupied with microscopically fine surface structures enclosed in a layer composite which includes at least a transparent embossing layer, a protective lacquer layer and a reflection layer with the microscopically fine surface structures, which is embedded between the embossing layer and the protective lacquer layer, wherein the surface portions with the first microscopically fine surface structures form background fields and surface portions with a second microscopically fine surface structure which differs from the first microscopically fine surface structures in at least one structural parameter form image element patterns and the surface of the half-tone image is divided into a plurality of image elements which are composed of the surface portions of the image element pattern and the background field and which are smaller than 1 mm at least in one dimension, wherein

the image element patterns in the image elements are of the same size, pattern strips extend with a line pattern of a width of 15 μm to 300 μm at least over a part of the surface of the half-tone image and partially cover the background fields and image element patterns, the line pattern is formed from surface strips with pattern structures and with line widths in the range of 5 μm to 50 μm, wherein the line patterns include letters, texts, line elements and pictograms and the pattern structures differ from the first and second microscopically fine surface structures in at least one structural parameter, the line width of the surface strips in the background fields is constant and the surface brightness of the image elements is controlled by means of the line

width of the surface strips on the image element pattern in such a way that the surface proportion of the image element pattern not covered by the line pattern is determined in accordance with the surface brightness of the image original of the half-tone image at the location of the image element and having regard to the surface brightness of the adjacent image elements, wherein the first microscopically fine surface structures and the second microscopically fine surface structure are meandering diffraction gratings whose spatial frequencies are selected from the range of 150 lines/mm to 2000 lines/mm, the meandering diffraction gratings of second microscopically fine surface structure including grating vectors having a range in the azimuth, and the meandering diffraction gratings of the background fields and the image element patterns differ at least in the azimuth range of the grating vectors.

25. (**New**) A diffractive security element according to claim 24, wherein the image elements whose first microscopically fine surface structures have in the background fields the same range in the azimuth of the grating vectors are arranged in accordance with their range in the azimuth of the grating vector in rows on the half-tone image.

26. (**New**) A diffractive security element according to claim 25, wherein on its surface the adjacent rows which differ in the range in the azimuth of the grating vectors are arranged in cyclically repetitive manner in the sequence ABC, ABC.

27. (**New**) A diffractive security element according to claim 18, wherein the first microscopically fine surface structures and the second microscopically fine surface structures are asymmetrical diffraction gratings, wherein the grating vectors of the asymmetrical diffraction gratings of the first microscopically fine surface structures are oriented in opposite relationship to the grating vectors of the second microscopically fine surface structures.

28. (**New**) A diffractive security element with a half-tone image comprising surface portions occupied with microscopically fine surface structures enclosed in a layer composite which includes at least a transparent embossing layer, a protective lacquer layer and a reflection

layer with the microscopically fine surface structures, which is embedded between the embossing layer and the protective lacquer layer, wherein the surface portions with the first microscopically fine surface structures form background fields and surface portions with a second microscopically fine surface structure which differs from the first microscopically fine surface structures in at least one structural parameter form image element patterns and the surface of the half-tone image is divided into a plurality of image elements which are composed of the surface portions of the image element pattern and the background field and which are smaller than 1 mm at least in one dimension, wherein

the image element patterns in the image elements are of the same size, pattern strips extend with a line pattern of a width of 15 μm to 300 μm at least over a part of the surface of the half-tone image and partially cover the background fields and image element patterns, the line pattern is formed from surface strips with pattern structures and with line widths in the range of 5 μm to 50 μm, wherein the line patterns include letters, texts, line elements and pictograms and the pattern structures differ from the first and second microscopically fine surface structures in at least one structural parameter, the line width of the surface strips in the background fields is constant and the surface brightness of the image elements is controlled by means of the line width of the surface strips on the image element pattern in such a way that the surface proportion of the image element pattern not covered by the line pattern is determined in accordance with the surface brightness of the image original of the half-tone image at the location of the image element and having regard to the surface brightness of the adjacent image elements, wherein the background fields as the first microscopically fine surface structure have a structure from the group which includes flat mirrors, cross gratings with spatial frequencies of greater than 2300 lines/mm and motheye structures.

29. (**New**) A diffractive security element with a half-tone image comprising surface portions occupied with microscopically fine surface structures enclosed in a layer composite which includes at least a transparent embossing layer, a protective lacquer layer and a reflection

layer with the microscopically fine surface structures, which is embedded between the embossing layer and the protective lacquer layer, wherein the surface portions with the first microscopically fine surface structures form background fields and surface portions with a second microscopically fine surface structure which differs from the first microscopically fine surface structures in at least one structural parameter form image element patterns and the surface of the half-tone image is divided into a plurality of image elements which are composed of the surface portions of the image element pattern and the background field and which are smaller than 1 mm at least in one dimension, wherein

the image element patterns in the image elements are of the same size, pattern strips extend with a line pattern of a width of 15 μm to 300 μm at least over a part of the surface of the half-tone image and partially cover the background fields and image element patterns, the line pattern is formed from surface strips with pattern structures and with line widths in the range of 5 μm to 50 μm, wherein the line patterns include letters, texts, line elements and pictograms and the pattern structures differ from the first and second microscopically fine surface structures in at least one structural parameter, the line width of the surface strips in the background fields is constant and the surface brightness of the image elements is controlled by means of the line width of the surface strips on the image element pattern in such a way that the surface proportion of the image element pattern not covered by the line pattern is determined in accordance with the surface brightness of the image original of the half-tone image at the location of the image element and having regard to the surface brightness of the adjacent image elements, wherein the background fields as the first microscopically fine surface structure have a linear diffraction grating with a spatial frequency from the range of 150 lines/mm to 2000 lines/mm and grating vectors which are oriented in mutually parallel relationship.

30. (**New**) A diffractive security element according to claim 28, wherein the second microscopically fine surface structure in the surfaces of the image element patterns is a diffractive scatterer selected from the group of isotropic and anisotropic matt structures,

kinoforms, diffraction gratings with circular grooves at a groove spacing of 1 to 3 μm and the matt structures superimposed with a diffraction grating.

31. (**New**) A diffractive security element according to claim 18, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is selected from the range of 800 lines/mm to 2000 lines/mm.

32. (**New**) A diffractive security element according to claims 18, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is dependent on the location on the half-tone image.

33. (**New**) A diffractive security element according to claim 18, wherein the azimuthal orientation of the grating vector of the linear diffraction grating in the pattern structures is dependent on the location on the half-tone image.

34. (**New**) A diffractive security element according to claim 18, wherein the pattern structure is one of the diffractive scatterers selected from the group of isotropic and anisotropic matt structures, kinoforms, diffraction gratings with circular grooves at a groove spacing of 1 to 3 μm and the matt structures superimposed with a diffraction grating.

35. (**New**) A diffractive security element according to claim 18, wherein the half-tone image is part of a mosaic of surface portions occupied by microscopically fine surface structures which are independent of the half-tone image.

36. (**New**) A diffractive security element according to claim 18, wherein the layer composite is adapted to be fixed by adhesive on a substrate.

37. (**New**) A diffractive security element according to claim 29, wherein the second microscopically fine surface structure in the surfaces of the image element patterns is a diffractive scatterer selected from the group of isotropic and anisotropic matt structures,

kinoforms, diffraction gratings with circular grooves at a groove spacing of 1 to 3 μm and the matt structures superimposed with a diffraction grating.

38. (**New**) A diffractive security element according to claim 24, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is selected from the range of 800 lines/mm to 2000 lines/mm.

39. (**New**) A diffractive security element according to claims 24, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is dependent on the location on the half-tone image.

40. (**New** A diffractive security element according to claim 24, wherein the azimuthal orientation of the grating vector of the linear diffraction grating in the pattern structures is dependent on the location on the half-tone image.

41. (**New**) A diffractive security element according to claim 24, wherein the pattern structure is one of the diffractive scatterers selected from the group of isotropic and anisotropic matt structures, kinoforms, diffraction gratings with circular grooves at a groove spacing of 1 to 3 μm and the matt structures superimposed with a diffraction grating.

42. (**New**) A diffractive security element according to claim 24, wherein the half-tone image is part of a mosaic of surface portions occupied by microscopically fine surface structures which are independent of the half-tone image.

43. (**New**) A diffractive security element according to claim 24, wherein the layer composite is adapted to be fixed by adhesive on a substrate.

44. (**New**) A diffractive security element according to claim 28, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is selected from the range of 800 lines/mm to 2000 lines/mm.

45. (**New**) A diffractive security element according to claims 28, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is dependent on the location on the half-tone image.

46. (**New**) A diffractive security element according to claim 28, wherein the azimuthal orientation of the grating vector of the linear diffraction grating in the pattern structures is dependent on the location on the half-tone image.

47. (**New**) A diffractive security element according to claim 28, wherein the pattern structure is one of the diffractive scatterers selected from the group of isotropic and anisotropic matt structures, kinoforms, diffraction gratings with circular grooves at a groove spacing of 1 to 3 μm and the matt structures superimposed with a diffraction grating.

48. (**New**) A diffractive security element according to claim 28, wherein the half-tone image is part of a mosaic of surface portions occupied by microscopically fine surface structures which are independent of the half-tone image.

49. (**New**) A diffractive security element according to claim 28, wherein the layer composite is adapted to be fixed by adhesive on a substrate.

50. (**New**) A diffractive security element according to claim 29, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is selected from the range of 800 lines/mm to 2000 lines/mm.

51. (**New**) A diffractive security element according to claims 29, wherein the spatial frequency of the linear diffraction gratings in the pattern structures is dependent on the location on the half-tone image.

52. (**New**) A diffractive security element according to claim 29, wherein the azimuthal orientation of the grating vector of the linear diffraction grating in the pattern structures is

dependent on the location on the half-tone image.

53. (**New**) A diffractive security element according to claim 29, wherein the pattern structure is one of the diffractive scatterers selected from the group of isotropic and anisotropic matt structures, kinoforms, diffraction gratings with circular grooves at a groove spacing of 1 to 3 μm and the matt structures superimposed with a diffraction grating.

54. (**New**) A diffractive security element according to claim 29, wherein the half-tone image is part of a mosaic of surface portions occupied by microscopically fine surface structures which are independent of the half-tone image.

55. (**New**) A diffractive security element according to claim 29, wherein the layer composite is adapted to be fixed by adhesive on a substrate.

56. (**New**) A diffractive security element according to claim 1, wherein the half-tone image is part of a mosaic of surface portions occupied by microscopically fine surface structures which are independent of the half-tone image.

57. (**New**) A diffractive security element according to claim 1, wherein the layer composite is adapted to be fixed by adhesive on a substrate.

58. (**New**) A diffractive security element according to claim 24, wherein the first microscopically fine surface structures and the second microscopically fine surface structures are asymmetrical diffraction gratings, wherein the grating vectors of the asymmetrical diffraction gratings of the first microscopically fine surface structures are oriented in opposite relationship to the grating vectors of the second microscopically fine surface structures.